



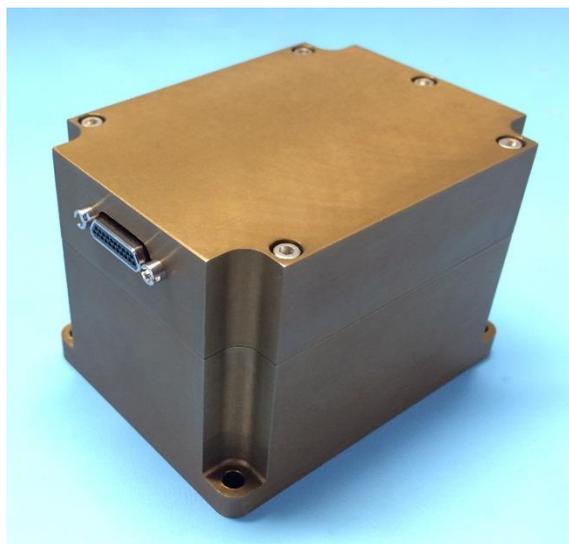
0.74 Ah RECHARGEABLE LITHIUM ION POLYMER SMART BATTERY

DESIGNED FOR MISSION CRITICAL APPLICATIONS

INVOCON, INC.

TECHNOLOGY PROFILE 1608

The Invocon **28V Rechargeable Smart Battery** uses lithium ion polymer battery technology. Lithium ion polymer batteries have one of the **highest energy storage and power delivery** densities (per weight) of modern batteries. This enables longer operation between charging and dependable operation of high current electrical loads or inrush currents without startup sequencing. The electronic management and control required for Li-Po batteries is resident within the battery housing and **protects the battery against over and under temperature charging, and over current charging**. This circuitry is built into the battery system to make it "smart", allowing for direct replacement of simple older batteries without upgrading to special chargers. The Invocon Smart Battery is designed and constructed with the highest possible IPC and electrical assembly standards. Custom circuitry, without a single point failure, provides uninterruptable power discharge for mission critical applications such as flight termination systems, which required qualification to RCC319-07. A **microprocessor** continuously measures key battery parameters and provides this information on communication ports. Additionally, **State of Charge (SOC)** is continuously calculated and presented to operators via a graphical user interface or to a vehicle data encoder unit. While powered, operators always know the condition of the battery at the cell level both in flight and preflight in order to verify mission readiness.



Specifications at 25 degrees C

Electrical	
Battery chemistry	Lithium Ion Polymer
Nominal capacity @ 1C discharge	0.74 Ah
Nominal discharge voltage range	32 – 22.5 VDC
Charging voltage	35 - 38 VDC (at up to 2C)
Continuous discharge current	15 Amps for 250 ms and 9 Amps continuous
Connector	Micro D, 21 pin, MWDM2L-21PCBRR4T
Communications interface	Ethernet (RS-422/RS-485 option)
Data	Battery & cell voltages, charge/discharge current, state of charge, state of health, pack & PCB temperature, over- /under-voltage alarms.
Mechanical	
Size (L x W x H)	3.33 x 2.58 x 2.28 inches
Weight	1.0 pound
Case material	Magnesium Alloy AZ31B-H24, Dichromate coating (6061 Aluminum option)
Environmental	
Operating temperature	-24° to 61° C
Charge temperature	0° to 45° C
Storage temperature	-20° to + 60° C

System specifications subject to change without notice.

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Invocon, Inc. • 19221 I-45 South, Ste 530 • Conroe, TX 77385

www.invocon.com • (281) 292-9903